

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:)
)
Wireless Operations in the 3650-3700 MHz Band) ET Docket No. 04-151
)
Rules for Wireless Broadband Services in the) WT Docket No. 05-96
3650-3700 MHz Band)
)
Additional Spectrum for Unlicensed Devices) ET Docket No. 02-380
Below 900 MHz and in the 3 GHz Band)
)
Amendment of the Commission's Rules with) ET Docket No. 98-237
Regard to the 3650-3700 MHz Government)
Transfer Band)

REPLY COMMENTS OF NEXTWEB, INC.

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SUMMARY

In its Report and Order and Memorandum Opinion and Order in this proceeding, the Federal Communications Commission (the “Commission”) proposed a plan for operation in the 3650-3700 MHz band (the “3.65 GHz Band”) that NextWeb supports, in general.

In these reply comments, NextWeb wishes to express its more specific support for the Petitions for Reconsideration in this proceeding, as best expressed by the WCA. Further, NextWeb herein proposes possible modifications of the plan to address the issues experienced in the real-world by one of the largest license-exempt service providers, and introduces proposals to provide access to licensed spectrum by smaller broadband service providers.

NextWeb refutes all suggestions and proposals that smaller broadband service providers should be restricted solely to the choice of either rural licensed operations or urban/suburban license-exempt operations with limited or no QoS.

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REPLY COMMENTS OF NEXTWEB, INC.

This fixed wireless service provider hereby submits reply comments generally in support of the comments in favor of the petitions for reconsideration in the above-captioned proceedings.

I. BACKGROUND.

NextWeb, Inc. is currently the largest fixed wireless service provider to business in California and is one of the largest operators in the license-exempt spectrum in the USA. NextWeb provides broadband wireless and VOIP service to cover over 500,000 small to medium-sized enterprises in California and Nevada. NextWeb is currently the broadband and VOIP service provider to 2,500 businesses connected on its fixed wireless network. NextWeb uses Part 101 licensed microwave links for its redundant wireless backbones to interconnect its base stations and deliver aggregate traffic to Internet exchanges and transit providers. NextWeb also uses Part 101 licensed microwave links to deliver 100 Mbps symmetrical IP service to high-

bandwidth users on its network. NextWeb currently is restricted to the use of Part 15 license-exempt bands, primarily at 5 GHz, for the delivery of its point-to-multipoint service for users requiring up to 10 Mbps symmetrical bandwidth and has extensive experience in this operation.

NextWeb is a founder member of various alliances intended to reduce the impact of interference in the license-exempt bands (for example, BANC, Broadband Access Network Coordination group www.wbanc.com). However, despite all its efforts, NextWeb is finding it increasingly difficult to maintain reliable operations in the license-exempt bands. NextWeb believes that the 3650 MHz band is a vital potential asset to emerging wireless service providers. Therefore, NextWeb wishes to support the opposition to the petitions for reconsideration in order to allow greater flexibility in the choice of frequency bands available to serve the public demand for its service.

II. DISCUSSION

A. NextWeb Supports Increased Competition in the Public Interest

NextWeb observes that the majority of participants in this proceeding are large incumbents who already have access to the spectrum they need and who generally have a vested interest in quashing any new competition. NextWeb suggests that the Commission should support new competition in the public interest and provide a regulated playing field in which access to spectrum is provided to all who genuinely need it and will use it – whether large or small.

It may be argued that the three primary monopoly holders (telcos, cable MSOs and cellular carriers) offer near-ubiquitous broadband coverage and adequate competition.

However, in all three cases, their businesses have depended on exclusively-granted licenses to operate.

The Commission's increasing move towards exclusive licensed spectrum auctions on one hand, and shared license-exempt spectrum on the other has resulted in the problems of spectrum hoarding and interference. With the high entry barrier to auctions and the failure of vendors to solve long-distance interference, this continues to limit the viability of sorely-needed competition.

NextWeb supports the arguments of the WCA, Rapid DSL, Wireless Inc. et al. in general for making the 3650 MHz band available to smaller service providers. However, in order to stimulate competition and spectrum usage, NextWeb proposes that no exclusive licensed spectrum be made available in any area to any entity that has previously been granted exclusive licensed area spectrum or who has unused exclusive license spectrum purchased through auction in the area.

***B. Urgent Need for Access to Licensed Spectrum by Small Providers:
NextWeb Supports Licensed Spectrum in the 3650 MHz Band.***

NextWeb disagrees with XO, Cisco and NAF that the 3650 MHz band should be exclusively allocated to license-exempt spectrum. NextWeb suggests that the Commission should put all efforts into resolving the DFS logjam in the 5.4 GHz band and fast-track approval of equipment to operate in this additional 225 MHz of spectrum, before attaching other license-exempt spectrum. However, if the 5.4 GHz band is, in practice, never going to be released for use in the USA, then this situation must be recognized and admitted first.

The known issue with license-exempt spectrum is that there are only three possible modes of viable operation:

- (i) Short distance / indoors where levels of wanted signals can over-ride levels of interfering signals (wireless LAN or WiFi applications);
- (ii) Long distance / outdoors where interference is controlled with directional antennas (point-to-point), frequency coordination (as Part 101 or BANC) or low density operation (very rural areas); or
- (iii) Any situation where always-on, sustained use, low latency is not required (home / personal applications with no quality of service (QoS)).

Because the industry has not succeeded in developing any contention protocols that effectively change these known limitations, NextWeb supports the WCA's position that a single contention protocol is impractical for license-exempt operation in the 3650 MHz band and that operations in the 2650 MHz band should be dependent on an as-yet unknown contention solution.

NextWeb feels that XO's position that the 3650 MHz band should be exclusively license-exempt because licensed spectrum leads to hoarding is untenably self-serving as it is possibly the largest holder of unused licensed spectrum. If spectrum hoarding is the problem, then the Commission should take active steps to recover and distribute hoarded licensed spectrum.

Nevertheless, the smaller service providers that do not have access to licensed spectrum (hoarded or otherwise) urgently need access to licensed spectrum because otherwise we will not be able to continue to meet the needs of our customers for long-distance, always-on, sustained use, low latency, broadband wireless service (i.e. QoS).

As a result, NextWeb supports the WCA's position that at least some of the 3650 MHz band be allocated to licensed spectrum and that it be allocated on either a pay-as-you go, or price-capped auction for any entity that has not previously been granted exclusive licensed

area spectrum or who does not have unused exclusive license spectrum purchased through auction in the area.

Finally, NextWeb notes that it is very difficult, if not impossible, for the public to find out who owns what spectrum in what areas and which spectrum is in use. Without this information, spectrum allocation decisions must surely be arbitrary. Therefore, NextWeb encourages the Commission to develop tools to gather this information and present it to the public on request, possibly using a search tool on the Commission's web site.

C. NextWeb Proposes Smaller Geographic License Areas.

NextWeb suggests that one of the most important reasons for unused licensed spectrum as well as the absence of smaller competitors with access to licensed spectrum, is the excessively large license areas. Major metro MSAs appeal to large incumbents and attract auction price barriers that close out smaller operators. Even RSA and BTA service areas result in far more coverage than the spectrum buyer needs and thus spectrum hoarding results.

NextWeb proposes that if a portion of the 3650 MHz band be granted or auctioned, the Commission should use State counties as the largest area unit. NextWeb specifically opposes all proposals to restrict smaller broadband service providers just to either licensed rural RSAs or urban/suburban license-exempt operations.

D. NextWeb Favors Realistic Approach to Interference Protection.

NextWeb agrees with WCA, Motorola and Verizon that the SIA proposal for C-Band satellite FSS services in the 3700 – 4200 MHz band is excessively conservative and

inappropriate for current RF technologies. Further, NextWeb does not support the 150 km protection zones around grandfathered earth stations because this will greatly reduce the attractiveness and overall potential of the 3650 MHz band. NextWeb would like to see new data collected on the actual locations, ownership and usage of the C-band earth stations about which the Networks are concerned, bearing in mind that many C-band operations have been migrated to Ku-band.

NextWeb supports the WiMAX and WCA balanced proposal that interference protection should be coordinated with a third party as in Part 101. However, NextWeb is concerned that incumbent FSS operators will unduly hinder coordination attempts in order to avoid competition.

E. NextWeb Supports Site Registration for License-Exempt Operation

NextWeb agrees with WCA and Verizon that the registration of base stations does not resolve interference protection requirements for license-exempt operation nor does it give any rights of operation. In other words, site registration should not be viewed along with contention protocols (neither of which exist, yet) as a sufficient condition for allocation of the 3650 MHz band exclusively to license-exempt operation.

However, NextWeb does agree with Motorola, Cisco, XO and the WiMAX Forum that site registration is a good thing should some or all of the 3650 MHz band be allocated to license-exempt operation, and as such it should be encouraged.

F. NextWeb Supports Increased Power Levels

NextWeb emphasizes that long-distance technologies, such as WiMAX just will not be viable with low power levels. Therefore, there is an implication for the adoption of technologies to compete with cellular and PCS operators in the setting of transmitter power levels. NextWeb also notes that there is generally poor understanding of the desirability of directional antennas to increase usage and confusion between the impact of EIRP and transmitter power on interference.

As a result, NextWeb does not agree with Cisco that there should be no increased power levels in the 3650 MHz band and supports the WiMAX Forum and XO's call for 25 watts EIRP or more for subscriber and base stations.

G. NextWeb Supports Spectrum Leasing

NextWeb sees no valid reason why spectrum leasing should not be permitted in all licensed bands, the 3650 MHz band included. However, NextWeb notes anecdotally that spectrum leasing markets are not entirely open and developed. As a result, pricing of leased spectrum has not come down to the point where spectrum leasing is usually a viable option for smaller service providers. Typically, it is only the larger, deep pockets service providers who have the financial resources to interest spectrum owners to participate in competitive leasing programs. In part, this is because spectrum owners look to large providers for their hope that the spectrum can be built out before being reclaimed due to lack of usage.

III. CONCLUSION.

Therefore, due to its significant benefit to the public interest, NextWeb, Inc. hereby submits the foregoing reply comments in general support of the petitions for reconsideration in this proceeding and asks that the FCC proceed in a manner consistent with the views expressed herein.

Respectfully submitted,

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